# **Exhibit 9**

Document 32998-13 PageID: 192312 Filed 07/23/24

Page 2 of 7



# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF LOUISIANA

In re: Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010

This Document Relates To: All Actions

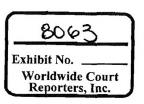
MDL NO. 2179

SECTION: J

JUDGE BARBIER MAGISTRATE JUDGE SHUSHAN

EXPERT REPORT OF KATHLEEN M. SUTCLIFFE, PH.D.

October 17, 2011



**CONFIDENTIAL** 

## **Table of Contents**

I.	Qualifications2				
II.	Assignment				
III.	Introduction and Methodology				
IV.	Summary of Conclusions 6				
V.		ng BP's Safety Culture			
III. IV. V. VI. Apper	V.A.	BP's Emphasis on Safety and Creation of a Safety Climate (Enable)			
	V.B.	BP's Safety Policies in Practice (Enact)	34		
	V.C.	BP's Reflection on and Learning from Safety Outcomes (Elaborate)	54		
VI.	Rebuttal of the Bea-Gale Report				
	VI.A.	Introduction and Summary of Rebuttal Conclusions	71		
	VI.B.	Professor Bea and Dr. Gale's Analysis Lacks a Framework			
	VI.C.	Professor Bea and Dr. Gale Reach Inaccurate and Misleading Conclusions	73		
	VI.D.	Rebuttal Conclusions	91		
VII.	Conclus	ions	91		
App	endix A:	Curriculum Vitae	A-1		
App	endix B: 1	Documents Considered	B-1		
App	endix C:	The Field of Safety Culture	C-1		
App	endix D:	Methodology for Reviewing Evidence	D-1		
		Notes and Sources for Figures			
		List of Acronyms			

Document 32998-13 PageID: 192314

I have worked and consulted on matters related to safety organizing and safety culture for a variety of entities, ranging from governmental agencies such as the Department of the Interior, the United States Forest Service, the Fire Department of New York, and ProRail in the Netherlands; to non-governmental organizations such as the Mayo Clinic, Cincinnati Children's Hospital and Medical Center, and Northwestern Medical School and Memorial Hospital; to private multinational companies around the world. I have worked with an oil and gas upstream exploration and production company on safety culture assessment and development. I have provided keynote addresses and training workshops around the world to leadership teams and to industry and professional groups such as Bombardier's annual Safety Standdown, the Council for Engineering and Scientific Societies, the Canadian Anesthesiological Society, and the European Society for Anesthesiology. Before studying for my doctoral degree, I served as Director of Health and Social Services for the Aleutian Pribilofs Islands Association (one of the 13 regional Alaska Native Corporations) and also served as a program manager for the State of Alaska.

### II. ASSIGNMENT

Counsel for BP has asked me to assess the safety culture of BP in the time leading up to the events on April 20, 2010 on the *Deepwater Horizon* (the "incident"). Counsel has also asked me to respond to the elements of the Report of Professor Robert G. Bea and Dr. William E. Gale<sup>1</sup> that relate to the assessment of BP's safety culture.

Though the term "safety culture" is used popularly in a variety of ways, scholars in the field of management and organizations have a specific understanding of the term. An organization's safety culture is the set of shared behavioral norms ("the way we do things"), underlying beliefs ("how things work"), and values ("what is important") that shape the way members of an organization act, think, and feel toward safety. A strong safety culture is one in which there is a widespread understanding and acceptance that "safety comes first" and a majority of organizational members direct their attention and actions toward improving it.

\_

<sup>&</sup>lt;sup>1</sup> "Rule 26 Report on BP's Deepwater Horizon Macondo Blowout," by Dr. Robert G. Bea and Dr. William E. Gale, Jr., *In re: Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010*, MDL No. 2179, United States District Court Eastern District of Louisiana, August 26, 2011 ("Bea-Gale Report").

Page 5 of 7

Document 32998-13 PageID: 192315

In assessing BP's safety culture – or the safety culture of any organization – it is critical to focus not just on whether leaders emphasize safety ("talk the talk") but also on whether employees throughout the organization act in ways that indicate safety is a shared priority ("walk the walk"). Thus, in undertaking my assignment, I have evaluated evidence not only about BP's safety policies and procedures but also about the extent to which those policies and procedures have been used in day-to-day operations. My work in this matter is ongoing, and I may supplement my analysis should more information become available to me.

The organization of my report is as follows. I introduce my report and my analytical framework in Section III. I summarize my opinions in Section IV. I expand upon my opinions on BP's safety culture in Section V, relying on evidence relevant to each aspect of my analytical framework. I respond to selected arguments in the Bea-Gale Report in Section VI. I offer conclusions in Section VII.

In working on this assignment, I have considered the documents and data listed in Appendix B. Others working under my supervision and direction have assisted me in this matter. I am being compensated in this matter at a rate of \$750 per hour. My compensation is not contingent upon the outcome of this case. I have not previously testified at trial or by deposition.

#### III. INTRODUCTION AND METHODOLOGY

The incident on the *Deepwater Horizon* on the evening of April 20, 2010 was a tragedy. When accidents such as this happen, there is a tendency, including by parties in this matter, to attribute them to an allegedly defective safety culture.<sup>2</sup> If the organization had valued safety and acted safely, the argument goes, the accident would not have occurred. Yet it is important to recognize that accidents are usually caused by a combination of factors and that even a strong safety culture cannot eliminate all accidents, especially in technologically complex and dynamic industries such as deepwater drilling. There is always a risk that an accident will happen. What a strong safety culture can accomplish is to reduce the likelihood of an accident and the severity of

<sup>&</sup>lt;sup>2</sup> In their report, Professor Bea and Dr. Gale argue that the cause – if not the sole cause – of the incident on the Deepwater Horizon was that BP had a defective safety culture. I respond to this assertion in detail in Section VI of my report.

Page 6 of 7

Document 32998-13 PageID: 192316

an accident should it occur. Given this, establishing that an organization's safety culture was a primary cause of an accident – or even a cause at all – would be a complex task and may not be possible. One would have to show deficiencies in the organization's safety culture and then demonstrate that those deficiencies led directly to the accident. The fact that an accident occurred is not enough. Organizations that have robust and well-functioning safety cultures can nonetheless experience accidents, even severe ones.

With this in mind, my aim in this report is to assess BP's safety culture. I have used evidence from the corporate level, the Gulf of Mexico business unit, and the Deepwater Horizon to conduct my assessment. While I have examined evidence as far back as 1999, I have relied primarily on evidence since 2005, when, as I discuss below, BP's efforts to build a stronger safety culture accelerated. My goal is to characterize BP's safety culture as of the incident. To conduct this assessment, I have employed an analytical framework grounded in the literature<sup>3</sup> and described in my academic work. Within this framework, a strong safety culture shares three elements: (1) it is enabled, meaning that the organization and its leaders emphasize safety and create a positive safety climate; (2) it is *enacted*, meaning that members of the organization put the organization's safety policies and procedures into practice; and (3) it is elaborated, meaning that the organization rigorously reflects on its safety performance and seeks to improve its policies and procedures as a result.

Under each of these three elements of a strong safety culture are several safety culture observations. Figure 1 below outlines this framework and lists these observations, nine in total. A strong organizational safety culture shares most or all of these nine observations.

To assess BP's safety culture, I have conducted a thorough and objective review of the evidence relevant to each of these nine safety culture observations. I have considered the depositions taken in this matter, thousands of documents produced in this matter, and many publicly available speeches, reports, and other materials. I describe my methodology for reviewing this evidence in Appendix D.

<sup>&</sup>lt;sup>3</sup> See Appendix C for a review of the field of safety culture.

<sup>&</sup>lt;sup>4</sup> See, for example, Vogus, T.J., Sutcliffe, K.M., Weick, K.E., "Doing No Harm: Enabling, Enacting, and Elaborating a Culture of Safety in Health Care," Academy of Management Perspectives, November 2010, pp. 60-77.

Page 7 of 7

Figure 1: Analytical Framework for Evaluating the Strength of a Safety Culture

PageID: 192317

Elements	Observations	
	1	Leaders and the organization prioritize safety. They invest in policies and procedures to create a safety infrastructure and take actions that reflect their commitment to safety.
E11-	2	Leaders and the organization collect and disseminate safety information.
Enable	3	Leaders and the organization empower individuals to speak up and act in ways that promote safety.
	4	Individuals perceive that leaders and the organization are committed to safety and that safety is a priority.
	5	Individuals are willing to disclose potential problems, errors, and near misses and are willing to communicate those concerns to others in the organization.
Enact	6	Individuals are mindful of potential risks and problems in their day-to-day activities.
	7	Individuals take preventative action to avoid problems and adaptive action to respond to problems as they unfold.
Elaborate	8	The organization rigorously reflects on safety outcomes and learns from them.
Elaborate	9	The organization seeks to improve its safety-related policies and procedures.

In Section V, I describe each of the safety culture observations. I then present and comment upon the evidence relevant to each observation. I use these individual assessments to draw conclusions about BP's safety culture as a whole.

#### IV. SUMMARY OF CONCLUSIONS

In my opinion, BP leaders, over time and through a variety of mechanisms, have worked to enable a strong safety culture. Throughout the organization, BP leaders have enabled a safety culture by credibly and consistently communicating their expectations about safety and safe performance. They have taken actions that reflect this commitment to safety, such as investing in policies and procedures and taking action to reward employees who act in accordance with these expectations.